

JUL 02 2007

Application No.: 10/510,385

Docket No.: 4590-340

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-7 and 9-21 remain pending in the application. Claims 12-18 are withdrawn from consideration. Claim 8 has been canceled. Claims 19-21 have been added.

Claims 1-2, 4-7, 9-11 are rejected under 35 U.S.C. 102(a/e) as being anticipated by Ding (U.S. Patent No. 2004/0061207). In response, claim 1 has been amended to include annealing which has many advantages over Ding. The microstructure thus obtained is subjected to a high-temperature annealing operation (between 400 and 1000°C) in order to strengthen the bond. Porous silicon has the advantage of being compatible with these temperatures. During this annealing phase, the internal surfaces undergo strong outgasing, typically resulting in an increase in pressure from 10 to 100 mbar in the absence of porous silicon. The presence of a large surface area of porous silicon makes it possible, however, during this annealing phase to absorb the molecules responsible for the increase in pressure and to bring the cavity back to a high vacuum, of 0.01 millibar or less. During this annealing, there also occurs an activation of the porous silicon that generally takes place at temperatures of around 400°C. This activation allows the surface of the porous silicon to be cleaned by desorption of the H molecules present after production of the porous silicon layer. Therefore claim 1 is patentable over Ding for at least these reasons. The anticipation rejection should be withdrawn.

Claims 2, 4-7 and 9-11 recite additional, important limitations and should be patentable for the reasons discussed above with respect to claim 1 as well as on their own merits.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ding (U.S. Patent No. 2004/0061207) in view of Wood (U.S. Patent No. 5,861,545). Applicant respectfully traverses this rejection. Wood does not overcome the deficiencies discussed above with respect to Ding.

Regarding claim 3, there is no reason to combine Wood with Ding – nor has the

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Examiner supplied any reasoning.

Regarding claim 8, Wood does not appear to be applicable. The only reason that Ding teaches using an elevated temperature is to form a strong and uniform bond. Claims 20 and 21 have been added to further emphasize the advantages and differences of using temperatures between 400°C and 1000°C. For at least these reasons, the obviousness rejection of claims 3 and 8 should be withdrawn.

All objections and rejections having been addressed, it is respectfully submitted that the present application should be in condition for allowance and a Notice to that effect is earnestly solicited.

Early issuance of a Notice of Allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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